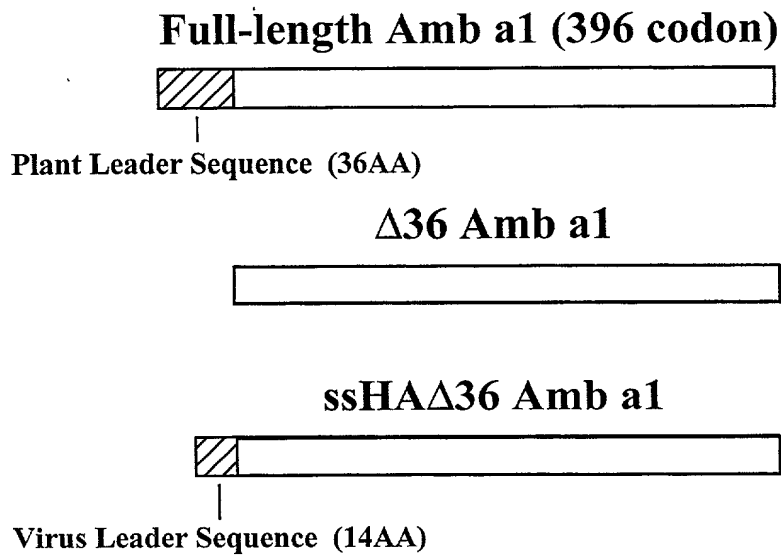


## FIG. 1

### Construct of Amb a1 cDNA - II



2 / 7

## FIG. 2

### Comparison of codon usage (Plant vs. Human)

#### *HIS*

	Plant	Human
<b>CAT</b>	83%	0%
<b>CAC</b>	17%	100%

#### *GLN*

	Plant	Human
<b>CAA</b>	90%	30%
<b>CAG</b>	10%	70%

#### *ASP*

	Plant	Human
<b>GAT</b>	76%	31%
<b>GAC</b>	24%	69%

#### *GLU*

	Plant	Human
<b>GAA</b>	69%	25%
<b>GAG</b>	31%	75%

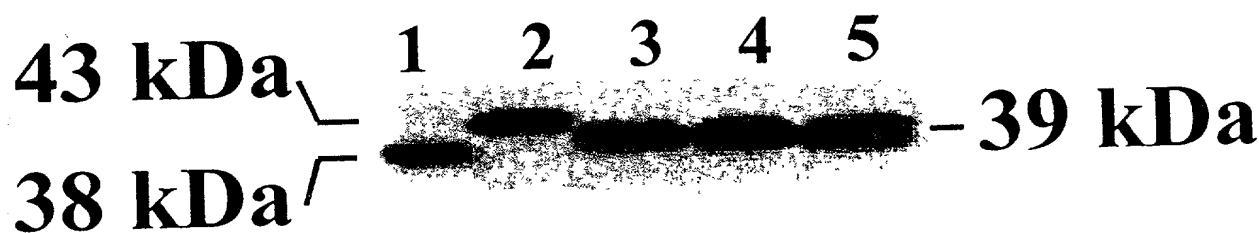
3 / 7

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### FIG. 3

#### Expression of Amb a1 in COS-7 cell - III

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1: Purified AgE

2: Amb a1/pNDKm ( x 1 )

3:  $\Delta$ 36Amb a1/pNDKm ( x 3 )

4: ssHA $\Delta$ 36Amb a1/pNDKm ( x 3 )

5: hssHA $\Delta$ 36Amb a1/pNDKm ( x 10 )

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4 / 7

## Induction of Antigen-specific Antibody and Cytokine *in vivo* - III

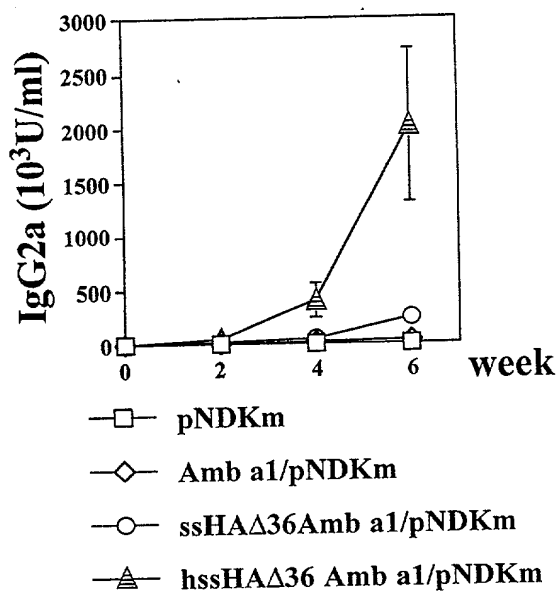


FIG. 4A

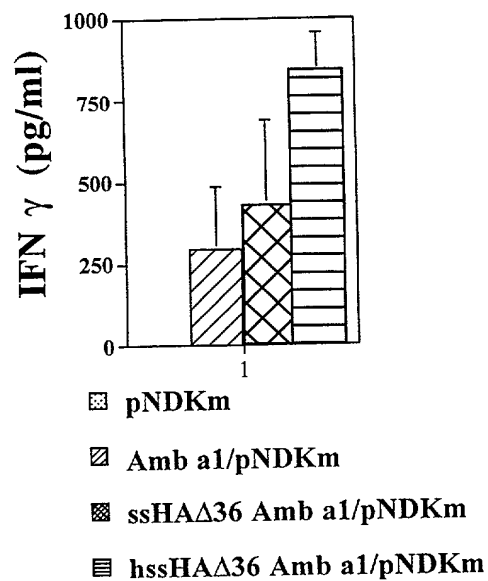


FIG. 4B

5 / 7

## Induction of Antigen-specific Antibody and Cytokine *in vivo* - VI

(Co-injection of ISS-ODN with 50 $\mu$ g of hssHA $\Delta$ 36Amb a1/pNDKm)

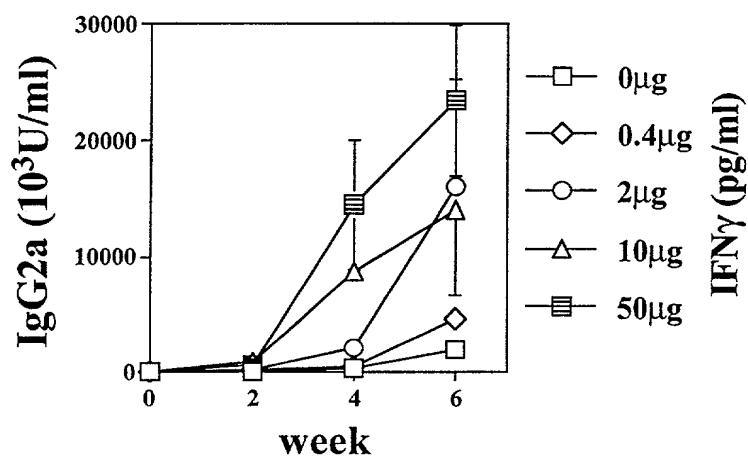


FIG. 5A

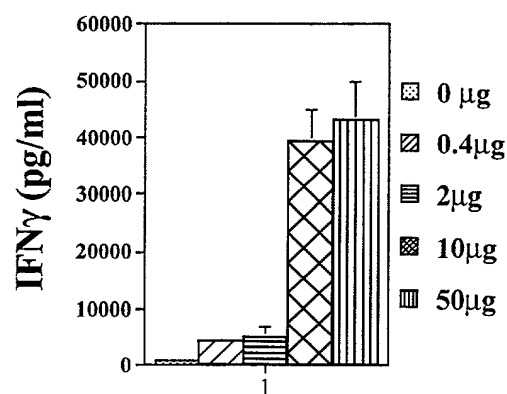
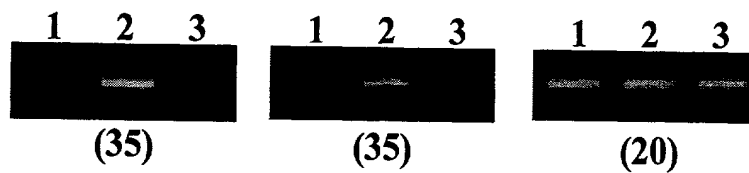


FIG. 5B

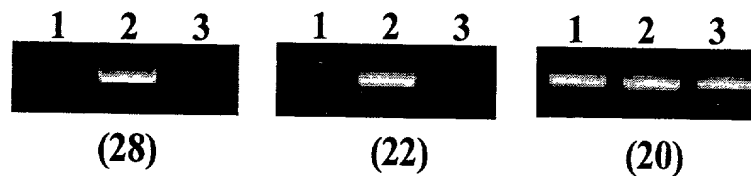
## FIG. 6

### *In vivo* Efficacy of ISS-ODN (dsPO vs. ssPS)

#### dsPO



#### ssPS



IL-6

IL-12

G3PDH

1: PBS, 2: ISS-ODN, 3: M-ODN

- Injection of ISS-ODN(i.v.)  
[200µg/mouse]
- Isolation of spleen after 2  
hr post-injection
- Isolation of mRNA
- Detection of IL-6/IL-12  
transcript by RT-PCR

Reduction of Amb a1-specific  
IgE *in vivo* (week 8)

FIG. 7A

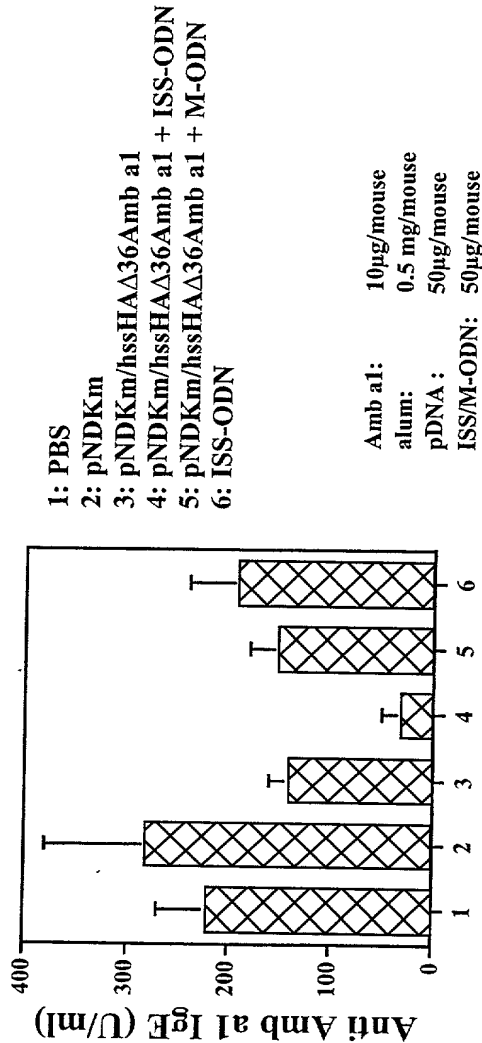


FIG. 7B

